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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,865	12/19/2001	Matthew J. Holliman	42390P13701	1060
7590	12/08/2004		EXAMINER KIM, CHONG R	
John P. Ward BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP 12400 Wilshire Boulevard, Seventh Floor Los Angeles, CA 90025-1026			ART UNIT 2623	PAPER NUMBER

DATE MAILED: 12/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/027,865

**Applicant(s)**

HOLLIMAN ET AL.

**Examiner**

Charles Kim

**Art Unit**

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Double Patenting*

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-3, 8-10, 15-17 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 15, 20, 21 of copending Application No. 10/028,470. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-3, 8-10, 15-17 of the instant application cover equivalent subject matter and are merely broader recitations of claims 15, 20, 21 in the copending application.

Claim 1 of the instant application recites "recovering embedded data from a data set, and quantitatively determining degree of data corruption of the data set with respect to an original data set by measuring degradation of recovered embedded data" in lines 2-4, which corresponds to "a watermark recovery module to determine presence of data corruption of the data set with respect to an original data set by measuring the amount of a recovered watermark" in lines 4-5 of

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claim 15 in the copending application. There are similar corresponding limitations between claims 8 and 15 of the instant application and claim 15 of the copending application.

Claim 2 of the instant application recites “quantitatively measuring temporal duration of data set corruption for data sets” in lines 1-2, which corresponds to “quantitatively measures temporal duration of corruption of data sets” in lines 1-2 of claim 21 in the copending application. There are similar corresponding limitations between claims 9 and 16 of the instant application and claim 21 of the copending application.

Claim 3 of the instant application recites “quantitatively measuring spatial extent of data set corruption for data sets” in lines 1-2, which corresponds to “quantitatively measures spatial extent of corruption of image data sets” in lines 1-2 of claim 20 in the copending application. There are similar corresponding limitations between claims 10 and 17 of the instant application and claim 20 of the copending application.

### *Claim Objections*

3. Claims 7, 14, 21 are objected to because the phrase “a received data sets” is grammatically incorrect. It appears that the applicant intended the phrase to read “received data sets”. Appropriate correction is required.

4. Claims 6, 13, 20 are objected to because of typographical errors. It appears that the applicant intended the phrase “audivisual” to read “audiovisual”. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Tian et al., International Publication No. WO 02/23468 A1 (“Tian”).

Referring to claim 1, Tian discloses a method of recovering embedded data from a data set, and quantitatively determining degree of data corruption of the data set with respect to an original data set by measuring degradation of recovered embedded data (page 13, line 10-page 14, line 10).

Referring to claim 2, Tian further discloses the step of quantitatively measuring temporal duration of data set corruption for data sets (page 17, lines 7-27).

Referring to claim 3, Tian further discloses the step of quantitatively measuring spatial extent of data set corruption for data sets (page 14, lines 12-32).

Referring to claim 4, Tian further discloses the measurement of watermarks embedded using correlation based embedders (page 8, lines 4-16 and page 12, lines 21-31).

Referring to claim 5, Tian further discloses the measurement of watermarks embedded using quantization based embedders (page 13, lines 10-32. Note that the Viterbi decoder in line 22 is interpreted as a quantization based embedder).

Referring to claim 6, Tian further discloses the step of quantitatively measuring corruption of audiovisual data sets by measuring corruption of temporally varied image frame watermarks (page 17, lines 17-27. Tian discloses that the watermark can be spread over time by spread spectrum modulating the watermark message with a carrier signal that spans a particular sequence of time frames. Tian explains that the message can then be repeated over blocks of these time frames. The Examiner notes that although the watermark message is repeated temporally over the blocks of time frames, the watermark signal in each image frame within one time block will be different/varied).

Referring to claim 7, Tian further discloses the measurement of global degradation of received data sets (col. 14, lines 3-10).

Referring to claims 8 and 15, see the rejection of at least claim 1 above.

Referring to claims 9 and 16, see the rejection of at least claim 2 above.

Referring to claims 10 and 17, see the rejection of at least claim 3 above.

Referring to claims 11 and 18, see the rejection of at least claim 4 above.

Referring to claims 12 and 19, see the rejection of at least claim 5 above.

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Referring to claims 13 and 20, see the rejection of at least claim 6 above.

Referring to claims 14 and 21, see the rejection of at least claim 7 above.

Referring to claim 22, Tian discloses a method of embedding a signal that degrades with a host signal change, and quantitatively determining degree of data corruption of a data set with respect to an original data set by measuring the degradation of recovered embedded signal (page 13, line 10-page 14, line 10).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Hosaka et al. U.S. Patent No. 6,775,391 discloses a watermarking method that applies temporally varied image frame watermarks.

b. Yeung et al. U.S. Patent Application Publication No. 2001/0020270 discloses a watermarking method that determines the data corruption of a data set by measuring a recovered watermark.

c. Carr et al. U.S. Patent No. 6,788,800 discloses a watermarking method that determines the data corruption of a data set by measuring a recovered watermark.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Kim whose telephone number is 703-306-4038. The examiner can normally be reached on Mon thru Thurs 8:30am to 6pm and alternating Fri 9:30am to 6pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703-308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ck

December 3, 2004



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